



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,109

03/23/2006

Guillaume Bichot

PU030052

8923

24498 7590 08/17/2011
Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER

ELLIOTT IV, BENJAMIN H

ART UNIT

PAPER NUMBER

2474

MAIL DATE

DELIVERY MODE

08/17/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,109	Applicant(s) BICHOT ET AL.	
	Examiner BENJAMIN H. ELLIOTT IV	Art Unit 2474	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/2011</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-4 and 6-13 have been examined and are pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/15/2011 has been entered.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 6/15/2011 has been found to be in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Response to Arguments

4. Applicant's arguments with respect to claims 1 and 8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-4 and 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Application Publication 2003/0087629 A1 to Juitt et al.

(hereinafter "Juitt") in view of United States Patent 6,980,549 B1 to Shabtay et al.
(hereinafter "Shabtay").

Regarding Claim 1, Juitt discloses **a method for controlling Quality of Service (QoS) levels/service levels within a wired network associated with wireless Local Area Network (LAN)** (Juitt: [0009]; generally described – a gateway server is disposed between wireless networks and wired networks to secure communications requiring the control access, link privacy, and QoS metrics such as link integrity and bandwidth metering.), **the wired network having different paths for carrying information frames received from at least one mobile terminal user** (Juitt: Figure 1A and supporting description in [0037]; describing mobile device, 100, accessing a wired network via any one of access points 102(a) – (c) to gateway server, 120.), **comprising the steps of:**

receiving in the wired network at least one information frame from the at least one mobile terminal user in said wireless LAN (Juitt: [0047] and Figure 1A; gateway server is bi-directional in that it accepts packets from connected wired network, 117 and wireless network, 105 via access points 102 (a) – (c) from mobile user. Also see [0049] for receiving an access request from the user at gateway server.).

Juitt discloses determining congestion, packet loss, and load balancing metrics for the access point by the gateway server, wherein any one of the triggering events (the listed QoS metrics diagnosed) may occur to fulfill a pre-fined service level for the mobile user (Juitt [0054]). Juitt does not expressly disclose determining a QoS for a frame.

In a similar field of endeavor, particular to routing communication data through a network, Shabtay discloses an acceleration switch that acts as a router to route particular packets based on some underlining criteria (Shabtay: Col. 1, line 63 through Col. 2, line 7; generally acceleration switch routes frames according to a common group.). Shabtay discloses **determining a QoS level/service level for the received at least one information frame** (Shabtay: Col. 1, line 63 through Col. 2, line 7; determining a QoS for the received packet to be routed. Col. 7, lines 3-26 and accompanying illustration in Figure 3; describing the switch identifying key elements of each frame including QoS field.);

associating with the received at least one information frame an identifier that identifies at least one path through the wired network having a transmission capability sufficient to provide the determined QoS level/service level, wherein the identifier includes a Virtual Local Area Network (VLAN) number (Shabtay: Col. 7, lines 27-44 and previous recitations disclosed in Col. 7, lines 3-26; an identifier, such as a VLAN designation, is determined for the received frame. If the frame has a VLAN designation, the frame is routed to an accelerated router for further processing. If there is no VLAN designation, the frame is bridged (another path).); **and**

routing the at least one information frame in the wired network along at least the at least one path identified by the associated identifier (Shabtay: See Figure 1 for wired network and previous recitations describing the routing of the frames according to the VLAN and other parameters (QoS) described above in Col. 7, lines 27-44.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of controlling QoS within a wired network as disclosed by Juitt by determining a QoS for a frame and a path to route a frame in view of Shabtay, as both references are of similar endeavor. This modification provides a clear and efficient forwarding of packets through a communication network thereby reducing unnecessary hardware resources in switches and routers (Shabtay: Col. 1, lines 33-55).

Regarding Claim 2, the combination of Juitt and Shabtay discloses **the method according to claim 1**, wherein Shabtay further discloses **the QoS level/service level is determined from the identity of the mobile terminal user that originated the at least one information frame** (Shabtay: Col. 7, lines 3-26; the QoS of each individual frame is directly related to the source and/or destination of the received frame.).

Regarding Claim 3, the combination of Juitt and Shabtay discloses **the method according to claim 1**, wherein Juitt further discloses **the QoS level/service level is determined in accordance with a QoS level/service level request received from the at least one mobile terminal user** (Juitt: [0021] and [0054]).

Regarding Claim 4, the combination of Juitt and Shabtay discloses **the method according to claim 1** wherein Juitt further discloses **the step of receiving the at least one information frame comprises the step of receiving an IP packet in an Ethernet Frame** (Juitt: [0038] and [0064]).

Regarding Claim 6, the combination of Juitt and Shabtay discloses **the method according to claim 1** wherein Shabtay further discloses **the step of routing the at least one information frame comprises the step of routing the at least one**

information frame to one of a plurality of separate destinations (Shabtay: Figure 1, items 26, and/or items 28).

Regarding Claim 7, the combination of Juitt and Shabtay discloses **the method according to claim 1** wherein Shabtay further discloses **the step of routing the at least one information frame comprises the step of routing the at least one information frame to one destination across a selected one of a plurality of interfaces** (Shabtay: Col. 11, lines 28-43; directly correlated to the plurality of ports associated with the group.).

Regarding Claim 8, Juitt discloses **a wireless Local Area Network (LAN) for routing received information frames, the wireless LAN associated with a wired network having Quality of Service (QoS) levels/service levels** (Juitt: [0009]; generally described – a gateway server is disposed between wireless networks and wired networks to secure communications requiring the control access, link privacy, and QoS metrics such as link integrity and bandwidth metering.), **wherein the wired network having different paths for carrying information frames received from at least one mobile terminal user** (Juitt: Figure 1A and supporting description in [0037]; describing mobile device, 100, accessing a wired network via any one of access points 102(a) – (c) to gateway server, 120.), **the wireless LAN comprising: at least one Access Point for receiving radio traffic from at least one mobile terminal** (Juitt: Figure 1A; representative of access points 120(a) – (c) communicating wirelessly with mobile device 100.) and for communicating such traffic in the form of at

Art Unit: 2474

least one information frame (Juitt: [0047] and Figure 1A; gateway server is bi-directional in that it accepts packets from connected wired network, 117 and wireless network, 105 via access points 102 (a) – (c) from mobile user. Also see [0049] for receiving an access request from the user at gateway server.):

an administrative gateway for establishing a Quality of Service (QoS)

levels/service level (Juitt: [0047] and Figure 1A; gateway server is bi-directional in that it accepts packets from connected wired network, 117 and wireless network, 105 via access points 102 (a) – (c) from mobile user. Also see [0049] for receiving an access request from the user at gateway server. [0009] and [0054]; generally described – a gateway server is disposed between wireless networks and wired networks to secure communications requiring the control access, link privacy, and QoS metrics such as link integrity and bandwidth metering.).

Juitt discloses determining congestion, packet loss, and load balancing metrics for the access point by the gateway server, wherein any one of the triggering events (the listed QoS metrics diagnosed) may occur to fulfill a pre-fined service level for the mobile user (Juitt [0054]). Juitt does not expressly disclose determining a QoS for a frame.

In a similar field of endeavor, particular to routing communication data through a network, Shabtay discloses an acceleration switch that acts as a router to route particular packets based on some underlining criteria (Shabtay: Col. 1, line 63 through Col. 2, line 7; generally acceleration switch routes frames according to a common group.). Shabtay discloses **determining a QoS level/service level for the received at**

Art Unit: 2474

least one information frame (Shabtay: Col. 1, line 63 through Col. 2, line 7; determining a QoS for the received packet to be routed. Col. 7, lines 3-26 and accompanying illustration in Figure 3; describing the switch identifying key elements of each frame including QoS field.). Shabtay further discloses **instructing at least one Access Point to assign an identifier of at least one network path to the at least one information frame that identifies a path through the wired network having transmission capability in accordance with the QoS level/service level established for the at least one information frame, wherein the identifier comprises a Virtual Local Area Network (VLAN) number** (Shabtay: Col. 7, lines 27-44 and previous recitations disclosed in Col. 7, lines 3-26; an identifier, such as a VLAN designation, is determined for the received frame. If the frame has a VLAN designation, the frame is routed to an accelerated router for further processing. If there is no VLAN designation, the frame is bridged (another path).) and **a switch for routing the at least one information frame along the at least one network path to a destination selected in accordance with the assigned identifier** (Shabtay: See Figure 1 for wired network and previous recitations describing the routing of the frames according to the VLAN and other parameters (QoS) described above in Col. 7, lines 27-44.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of controlling QoS within a wired network as disclosed by Juitt by determining a QoS for a frame and a path to route a frame in view of Shabtay, as both references are of similar endeavor. This modification provides a clear

and efficient forwarding of packets through a communication network thereby reducing unnecessary hardware resources in switches and routers (Shabtay: Col. 1, lines 33-55).

Regarding Claim 9, the combination of Juitt and Shabtay discloses **the wireless LAN according to claim 8**, wherein Shabtay further discloses **the switch is a Virtual Local Area Network (VLAN) capable Ethernet switch** (Shabtay: Col. 5, lines 41-61).

Regarding Claim 10, the combination of Juitt and Shabtay discloses **the wireless LAN according to claim 8** wherein Juitt further discloses **a plurality of routing gateways, each comprising a destination for the at least one information frame routed by the switch in accordance with the identifier assigned to the at least one information frame** (Juitt: [0039]; suggesting a plurality of gateways may be implemented, thus lending to routing via a plurality of gateways.).

Regarding Claim 11, the combination of Juitt and Shabtay discloses **the wireless LAN according to claim 8 further including a routing gateway, having a plurality of interfaces** (Juitt: Figure 1A; bi-directional gateway 120. Shabtay: Col. 1, line 63 through Col. 2, line 7; determining a QoS for the received packet to be routed. Col. 7, lines 3-26 and accompanying illustration in Figure 3; describing the switch identifying key elements of each frame including QoS field.), **each interface providing a path for carrying the at least one information frame routed by the switch in accordance with the identifier assigned to the at least one information frame** (Shabtay: See Figure 1 for wired network and previous recitations describing the routing of the frames according to the VLAN and other parameters (QoS) described above in Col. 7, lines 27-44.).

Regarding Claim 12, the combination of Juitt and Shabtay discloses **the method according to claim 1**, wherein Shabtay further discloses **the VLAN number is the identifier that identifies the path through the wired network having transmission capability sufficient to provide the determined QoS level/service level** (Shabtay: Col. 6, lines 50-58).

Regarding Claim 13, the combination of Juitt and Shabtay discloses **the wireless LAN according to claim 8**, wherein Shabtay further discloses **the VLAN number is the identifier that identifies the path through the wired network having transmission capability in accordance with the QoS level/service level established for the at least one information frame** (Shabtay: Col. 6, lines 50-58).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN H. ELLIOTT IV whose telephone number is (571)270-7163. The examiner can normally be reached on Monday thru Friday, 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AUNG S. MOE/
Supervisory Patent Examiner, Art Unit 2474

BENJAMIN H ELLIOTT IV
Examiner
Art Unit 2474